

Illinois Tool III

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(56) Documents cited  
 GBA 2078895  
 GBA 2000241  
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 F2H

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(54) Screw anchors for use in  
 masonry

(57) A threaded fastener 10 designed  
 for anchoring embodiment into  
 masonry structures 24 which include  
 relatively hard aggregate. The shank  
 has formed thereon a spaced, helical,  
 continuous thread 12 extending from

the entering portion 13 towards the  
 enlarged head portion 14 for a  
 substantial portion of the length of the  
 shank, the helical thread having a V-  
 shaped cross-sectional configuration  
 with the flanks of the thread  
 intersecting at an included angle  $A_2$  in  
 the range of  $50^\circ$  to  $65^\circ$ , and the  
 helical thread extending about the  
 shank at a lead angle  $A_1$  in the range  
 of  $6^\circ$  to  $8.5^\circ$ . The fastener is inserted  
 with a rotational speed not exceeding  
 250 RPM at torque levels not less  
 than 150 in. lb. (1700 cm N). A  
 second helical thread may be located  
 intermediate the turns of the main  
 thread and have a smaller crest  
 diameter.

Fig. 1

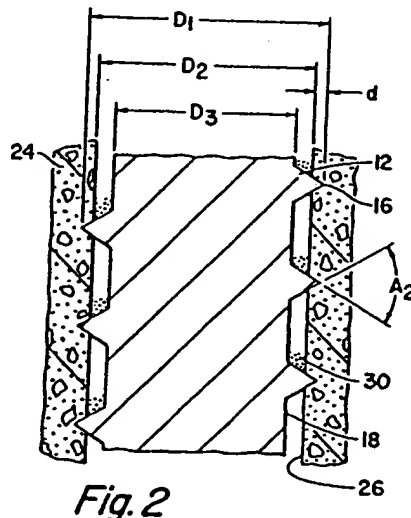
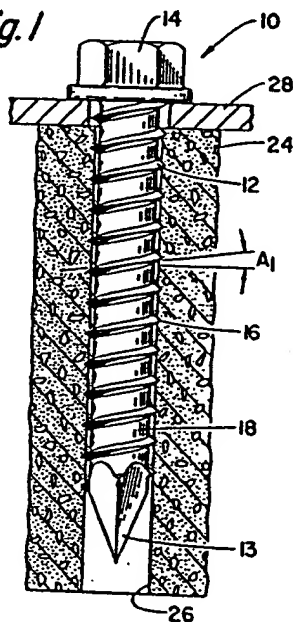


Fig. 2

GB 2 115 511 A

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